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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,264	10/21/2003	Roman Wrosz	AT-000217	4603
24710	7590	08/21/2006	EXAMINER	
ALIGN TECHNOLOGY, INC. ATTENTION: SCOTT SMITH 881 MARTIN AVENUE SANTA CLARA, CA 95050			NGUYEN, THUKHANH T	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,264	Applicant(s) WROSZ, ROMAN	
	Examiner Thu Khanh T. Nguyen	Art Unit 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 49-53 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Murayama (5,259,745).

Murayama teaches an apparatus for forming thermoplastic material, comprising a workpiece feeding device (18, 48), heating mechanism (46, 38), an operating housing, or molding chamber (2, 6), a plurality of turrets (6, 26, 54) for moving the workpieces from one station to another station, and a mold and plug manipulation system (Fig. 2, 8, 92, 94) for forming the workpieces into the final products.

In regard to claims 50-52, Murayama discloses a loading chute (30) and a rotary feeding means (18) for introducing a workpiece, or a closure into the workpiece heating mechanism (38); wherein the loading chute (30) is an inline system and the feeding means (18) is a rotary turret system.

In regard to claims 53 and 61, wherein the mold and plug system is a rotary turret system (Fig. 2, 8), and wherein each plug is configured for cooperation with a corresponding mold.

In regard to claim 54, wherein the workpiece introduction system (48) includes a cutter to form a series of workpieces that are deposited into different molds (col. 13, line 66 to col. 14, lines 8).

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3. Claims 49-51, 54-56 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Keaton (4,824,354).

Keaton teaches a hydraulic continuous press, comprising a heating means for heating the material (col. 4, lines 10-14 & col. 6, lines 37-38), an operation chamber, or molding station (38), and a conveyor rail (52) for transporting a plurality of upper and lower molds through different stations.

In regard to claims 50-51 and 54, the apparatus further comprises an inline workpiece introduction system as a sheet extruder (180) or as a rotary means as a roll pays out a plastic sheet (col. 6, lines 18-21).

In regard to claims 55-56, the apparatus further comprises a mold preparation chamber/station for aligning and pre-heating the upper and lower molds (18; col. 6, lines 33-37).

In regard to claim 61, the series of upper molds, or plugs (14, 16), is configured for cooperation with a corresponding lower molds to ensure that the workpiece is pulled over the molds (col. 3, lines 45-53).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keaton ('354) as applied to claims 49-56 above and further in view of Culp et al (6,976,627).

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Keaton fails to disclose a laser-marking system and a CNC trimming system.

Culp et al disclose an apparatus for identification and customized dental molds, comprising a laser marker system (col. 5, lines 65-67) and a CNC cutter system that can be aligned and trimmed at different angle depending on the geometry of the dental product.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Keaton by providing a laser marker system and a CNC cutter system as taught by Culp et al in order to identify and finish the molded product.

6. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kopp (3,600,752) discloses a pressing apparatus is used for forming a sheet material into a dental product.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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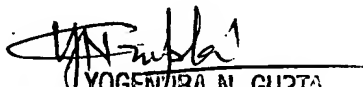
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 571-272-1136. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN


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